

SYSTEM AND METHOD FOR FABRICATING ARRAYED
OPTICAL FIBER COLLIMATORS

ABSTRACT OF THE DISCLOSURE

An alignment procedure aligns the components of an arrayed optical fiber
5 collimator and reduces losses associated with the collimator. Initially, an optical fiber
array block including a plurality of individual optical fibers is received and retained. Next,
a microlens array substrate including a plurality of microlenses integrated along a
microlens surface and a substrate surface opposite the microlens surface is received and
retained. Then, at least a portion of a first light receiver that is positioned to receive a light
10 beam from at least one of the integrated microlenses is received and retained. Next, at
least one light beam is provided from the light source to at least one of the plurality of
individual optical fibers. Then, the position of at least one of the microlens array substrate
and the optical fiber array block is adjusted in relation to each other to maximize the
optical power of the light beam received by the first light receiver.

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